

File
Copy to Tom P. &
Tom T.

WHITE RIVER SHALE OIL CORPORATION

SUITE 500 PRUDENTIAL BUILDING, 115 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84111
(801) 363-1170

JIM

April 7, 1982

APR 10 1982

Mr. James Smith
Utah Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, UT 84116

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DIVISION OF
OIL, GAS & MINING

Dear Mr. Smith:

As discussed with your staff during the April 1, 1982, meeting, White River Shale Oil Corporation (WRSOC) plans to submit an Intent to Commence Mining Application on or before May 3, 1982. In order to expedite the processing of this application, we would like to refer you and your staff to WRSOC's Detailed Development Plan (DDP).

The DDP contains information about our proposed mining and reclamation plans which should provide your agency with a good working background from which to process our application. Since the DDP covers all aspects of the White River Shale Project, we have enclosed an outline which refers you to only those sections of the report which contain mine and reclamation related materials. It is our hope that this official submittal of pertinent sections of the DDP at this time will shorten the permit approval time.

The DDP for Tracts Ua and Ub was prepared in accordance with Section 10 of our Federal Oil Shale Lease. The lease requires that the DDP conform to all federal, state, and local regulations and standards for air, water, and land quality. The lease also required that the DDP include environmental safeguards and lease land rehabilitation plans. It should also be noted that the DDP has been approved by Mr. Peter A. Rutledge, Deputy Minerals Manager for the Oil Shale Office, following extensive public review and two public hearings.

During the April 1, 1982, meeting with your staff, WRSOC's proposed construction schedule was also discussed. Although actual mine related operations (i.e. collar construction, shaft sinking, etc.) will not begin until WRSOC has obtained approval from your agency, upgrading of an existing plant site road and site preparation for a mine services building are scheduled to begin on or before June 1, 1982. The upgraded road will serve as a temporary mine construction road.

Mr. James Smith
April 7, 1982
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WRSOC requests written approval from the Utah Division of Oil, Gas and Mining (UDOGM) to begin site preparation for the service building as well as upgrading of the temporary mine construction road prior to permit issuance. WRSOC has already filed a \$1,000,000 reclamation bond (copy enclosed) with the BLM (as required by our oil shale leases) and all on-site activities must be in accordance with the DDP or otherwise as approved by the Oil Shale Office. Thus, UDOGM can be assured that the environmental aspects of our proposed activities are being thoroughly addressed.

WRSOC has enclosed the following sections of our Oil Shale Lease and Oil Shale Lease Environmental stipulations for your review:

- o Section 9 - Reclamation Bond Requirements
- o Section 10 - DDP Requirements
- o Section 11 - Additional Environmental Stipulations
- o Oil Shale Lease Environmental Stipulations

These four sections are the same for both the Ua and Ub leases.

Also, WRSOC would like to meet with you and/or your staff on-site at your convenience during the first week of May, 1982. At that time, we could answer any permit related questions which UDOGM may have. We will contact your office shortly to schedule a site visit which is convenient for all parties concerned.

If you have any questions concerning this letter or other mine related matters, please contact Mr. Ralph DeLeonardis.

Sincerely,



James W. Godlove
Director of Environmental Affairs

RAD/fb

Enclosures

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remittances to the Bureau shall be made payable to the Bureau of Land Management; those to the Geological Survey shall be made payable to the United States Geological Survey.

Section 9. Bond

(a) The Lessee shall file with the appropriate Bureau office and maintain a bond in the amount of \$20,000 for the purpose of ensuring compliance with the provisions of this lease, except those provisions for compliance with which a separate bond is required under subsection (b) of this section.

(b) (1) Upon approval of a detailed development plan under section 10 of this lease, the Lessee shall file with the appropriate Bureau office and maintain, in addition to the bond required under subsection (a) of this section, a bond (in an amount determined pursuant to paragraph (2) of this subsection) which shall be conditioned upon the faithful compliance with the regulations in 30 CFR Part 231 and 43 CFR Part 23, the provisions of sections 10 and 11 of this lease, the Oil Shale Lease Environmental Stipulations attached to this lease pursuant to section 11, and any approved development plan (or approved, amended, supplemental or partial plan), to the extent that it relates to the preservation and protection and conservation of resources other than Oil Shale during the conduct of exploration or mining operations, and the reclamation of lands and waters affected by exploration or mining operations.

(2) During the first three Lease Years after the approval of a detailed development plan under section 10 of this lease, the bond shall be in an amount equal to (i) \$2,000 per acre for all portions of the Leased Lands which, pursuant to the plan, will be used for spent shale disposal sites and sites for actual mining operations during that three year period and (ii) \$500 per acre for all other portions of the Leased Lands upon which operations will be conducted or which will be directly affected by operations during that three year period under the plan, but the total bond shall in no event be less than \$20,000. After the first three Lease Years the bond shall be renewed at intervals of three Lease Years. Each renewed bond shall be for three Lease Years and at such a total figure as shall be determined by the Lessor to be needed to provide for the reclamation and restoration of all portions of the Leased Lands which have been affected by previous operations under this lease or which will be affected by operations under this lease during the ensuing three year period. The amount of the bond shall be increased at any time during the three-year period at the demand of the Lessor if there is a change in the development plan which, in the opinion of the Lessor, increases the possibility of environmental damage.

Upon request of the Lessee, the bond may be released as to all or any portion of the Leased Lands affected by exploration or mining operations during the three year period covered by the bond when the Lessor has determined that the Lessee has successfully met the reclamation requirements of the approved development plan and that operations have been carried out and completed with respect to these lands in accordance with the approved plan.

(c) Prior to the approval of any plan for exploratory work under section 10(d) of this lease, the Lessee shall file with the appropriate Bureau office and maintain, in addition to the bond required under subsection (a) of this section, a bond in such an amount as the Mining Supervisor shall require, but in no event less than \$20,000, which shall be conditioned upon the faithful compliance with regulations in 30 CFR Part 231 and 43 CFR Part 23, the provisions of sections 10 and 11 of this lease, the Oil Shale Lease Environmental Stipulations attached to this lease pursuant to section 11, and any approved plan for exploratory work, to the extent that it relates to the preservation and protection of the environment (including land, water, and air), the protection and conservation of resources other than Oil Shale during the conduct of exploration operations, and the reclamation of lands and waters affected by exploration operations.

The bond required by this subsection shall apply only to actions taken prior to the date of approval of the development plan under section 10(a) of this lease. However, with the consent of the Mining Supervisor, the Lessee may modify this bond in such a manner as is necessary to meet the requirements of subsection (b) of this section, and the bond so modified may, with the consent of the Mining Supervisor, be maintained as the bond required under subsection (b).

Section 10. Development plan and diligence requirements

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(a) The Lessee shall file with the Mining Supervisor on or before the third Anniversary Date a detailed development plan. This plan shall include: (1) a schedule of the planning, exploratory, development, production, processing, and reclamation operations and all other activities to be conducted under this lease; (2) a detailed description pursuant to 30 CFR Part 231 and 43 CFR Part 23 of the procedures to be followed to assure that the development plan, and lease operations thereunder, will meet and conform to the environmental criteria and controls incorporated in the lease; and (3) a requirement that the Lessee use all due diligence in the orderly development of the Leased Deposits, and, in particular, to attain, at as early a time as is consistent with compliance with all the provisions of this lease, production at a rate at least equal to the rate on which minimum royalty is computed under section 7(e)(1).

Prior to commencing any of the operations under the development plan in the Leased Lands, the Lessee shall obtain the Mining Supervisor's approval of the development plan. The Mining Supervisor shall not delay unnecessarily in the consideration of a development plan, but he shall take time to consider both technical and environmental provisions of the plan thoroughly prior to approval, and shall hold public hearings on the environmental provisions to assist him in his consideration of the detailed development plan. If the development plan submitted by the Lessee is unacceptable, the Mining Supervisor shall inform the Lessee by written notice of the reasons why the development plan is unacceptable and shall give him an opportunity to amend the plan. If an acceptable development plan is not submitted to the Mining Supervisor by the Lessee within one year after the Lessee's receipt of that notice, the Mining Supervisor shall send a second written notice to the Lessee concerning the unacceptability of the development plan. A failure by the Lessee to submit an acceptable plan within one year after his receipt of the second written notice, without reasonable justification for delay, shall be grounds for termination of the lease, if the Lessor so elects.

Upon approval of the plan, the Lessee shall proceed to develop the Leased Deposits in accordance with the approved plan. After the date of approval of the development plan, the Lessee shall conduct no activities upon the Leased Lands except pursuant to that development plan, or except for necessary activities following a relinquishment under section 28 of this lease or for the disposition of property after termination pursuant to section 32 of this lease.

(b) The Lessee must obtain the written approval of the Mining Supervisor of any change in the plan approved under subsection (a).

(c) The Lessee shall file with the Mining Supervisor annual progress reports describing the operations conducted under the development plan required under subsection (a).

(d) Prior to undertaking any exploratory work on the Leased Lands between the Effective Date and the date of approval of the detailed development plan required by subsection (a) of this section, the Lessee shall file with the Mining Supervisor a plan showing the exploratory work which he proposes to undertake and he shall not commence that work until the Mining Supervisor has approved the plan.

Exploratory work, as used in this subsection, shall include, but not be limited to, seismic work, drilling, blasting, research operations, cross-country travel, the construction of roads and trails and other necessary facilities, and the accumulation of baseline data required under section 1(C) of the Oil Shale Lease Environmental Stipulations. Prior to approval of the detailed development plan under subsection (a) of this section, all exploratory work on the Leased Lands shall be conducted pursuant to a plan approved under this subsection.

Section 11. Protection of the environment; additional stipulations

(a) The Lessee shall conduct all operations under this lease in compliance with all applicable Federal, State and local water pollution control, water quality, air pollution control, air quality, noise control, and land reclamation statutes, regulations, and standards.

(b) The Lessee shall avoid, or, where avoidance is impracticable, minimize and, where practicable, repair damage to the environment, including the land, the water and air.

(c) The Oil Shale Lease Environmental Stipulations are attached to and specifically incorporated in this lease. A breach of any term of these stipulations will be a breach of the terms of this lease and subject to all the provision of this lease with respect to remedies in case of default.

OIL SHALE LEASE ENVIRONMENTAL STIPULATIONS

SECTION 1. GENERAL

(A) Applicability of Stipulations

The terms, conditions, requirements and prohibitions imposed upon Lessee by these Stipulations are also imposed upon Lessee's agents, employees, contractors, and sub-contractors, and their employees. Failure or refusal of Lessee's agents, employees, contractors, sub-contractors, or their employees to comply with these Stipulations shall be deemed to be the failure or refusal of the Lessee. Lessee shall require its agents, contractors, and sub-contractors to include these Stipulations in all contracts and sub-contracts which are entered into by any of them, together with a provision that the other contracting party, and its agents, employees, contractors and sub-contractors, and the employees of each of them, shall likewise be bound to comply with these stipulations.

(B) Changes in Conditions

These Stipulations are based on existing knowledge and technology. They may be revised or amended by mutual consent of the Mining Supervisor, the Bureau District Manager, and the Lessee at any time to adjust to changed conditions or to correct an oversight. The Lessor may amend these stipulations at any time without the consent of the Lessee in order to make these stipulations consistent with any new Federal or State statutes for the protection

of the environment upon their enactment and with regulations issued under those statutes. The Lessee, the Mining Supervisor, and the Bureau District Manager shall meet at least once a year to review advances in technology and, in a mutual endeavor, weigh, and decide the feasibility and need of revising or amending existing Stipulations.

The Lessor and the Lessee agree that, in this mutual endeavor to decide upon the feasibility and need for amending the existing Stipulations, they will act in good faith and in a sincere effort to make the Lessee's activities under the lease as free from environmental damage as is practicable. Toward this end, systems which require pollution control devices shall possess sufficient flexibility to adopt improved technology at practicable intervals and shall be constructed with the understanding that continued compliance with changing pollution control laws is required.

(C) Collection of Environmental Data and Monitoring Program

(1) The Lessee shall compile data to determine the conditions existing prior to any development operations under the lease and shall, except as provided below, conduct a monitoring program before, during, and subsequent to development operations. The Lessee shall conduct the monitoring program to provide a record of changes from conditions existing prior to development operations, as established by the collection of baseline data, a continuing check on compliance with the provisions of the lease (including these attached

Stipulations) and all applicable Federal, State, and local environmental protection and pollution control requirements, timely notice of detrimental effects and conditions requiring correction, and a factual basis for revision or amendment of these Stipulations pursuant to Section 1(B) hereof. Both the types of baseline and subsequent data required and the methods to be used for the collection of the baseline data and the conduct of the monitoring program shall be those set forth in paragraph (2) of this subsection. Once the monitoring program has begun the baseline data shall be collected continuously as long as the Mining Supervisor shall require under paragraph (2) of this subsection. The baseline data shall be conducted for at least one full year prior to the submission of the detailed development plan under section 10(a) of this lease. The plan shall, at the discretion, or with the approval, of the Mining Supervisor, be modified at any time as necessary as a result of study of the baseline data obtained after the submission of the plan. Exploratory operations, as approved by the Mining Supervisor, shall be permitted during the collection of the baseline data. All records of baseline data and subsequent monitoring required by this subsection shall be submitted to the Mining Supervisor at intervals to be prescribed by him.

(2) In collecting baseline data and conducting a monitoring program the Lessee shall adopt the following methods and shall collect the information required below. Wherever the number and placing of testing installations are not given, they shall be as

determined by the Lessee, but subject to being changed as required by the Mining Supervisor. The monitoring program shall, thereafter, be conducted until the Mining Supervisor has determined to his satisfaction that environmental conditions have been established after the termination of development operations which are consistent with the requirements of applicable Federal and State statutes and regulations; however, the Mining Supervisor may terminate this requirement at an earlier date where it is in the public interest.

(a) Surface water. The Lessee shall construct gauging stations on the major drainages on the Leased Lands and, as required by the Mining Supervisor, upstream and downstream from the Leased Lands. Data collected at the stations shall include continuous streamflow records, continuous water temperature records, periodic analyses for selected inorganic and organic chemical constituents, as directed by the Mining Supervisor, continuous precipitation records, and continuous sediment records. The Lessee shall maintain records of all information obtained under this paragraph (2)(a).

(b) Ground water. At each proposed or actual mine site, the Lessee shall drill a test well and shall install an observation well in each water-bearing zone defined by the test well. The Lessee shall collect samples of drill cuttings and shall make

borehole geophysical logs as directed by the Mining Supervisor. The Lessee shall isolate each water-bearing zone penetrated by the test wells and pump each of the zones for the period required by the Mining Supervisor. During pump tests the Lessee shall record the water-level fluctuations in each of the observation wells, maintain steady, continuous discharge from the test well, and record the discharge measurements. The Lessee shall maintain records of water level and temperature on each test well and on each observation well pursuant to a measurement schedule specified by the Mining Supervisor. At the initial pump test of each well the Lessee shall determine the water quality of that well by analyzing water samples for organic and inorganic chemical constituents, including, without limitation, trace constituents subject to drinking water standards and water pollution control regulations. The Mining Supervisor may require analysis of samples for such additional constituents as he may deem desirable. After the initial test, the Lessee shall collect water samples from each well at six-month intervals and analyze them for evidence of trends in water quality as determined by comparing the samples with previous analyses.

The Lessee shall complete one observation well upgradient from each spent shale disposal site and at least two observation wells downgradient from the site at depths and locations specified by the Mining Supervisor. The Mining Supervisor may require additional

observation wells if there is evidence that they are needed to provide adequate monitoring of the water quality of an aquifer. The Lessee shall record water levels and temperatures in each observation well pursuant to a measurement schedule established by the Mining Supervisor. The Lessee shall determine the water quality of each observation well by analyzing samples for organic and inorganic chemical constituents, including, without limitation, trace constituents subject to drinking water standards and water pollution controls. The Mining Supervisor may require analysis of samples for such additional constituents as he may deem desirable. After the initial test of an observation well the Lessee shall collect water samples from the well at six-month intervals and analyze them for evidence of trends in water quality as determined by comparing the samples with previous analyses.

The Lessee shall maintain records of all information obtained under this paragraph (2)(b).

(c) Air Quality. In the collection of baseline data, the Lessee shall monitor air quality over at least 90 percent of each lease year, during which monitoring is required, using four strategically-located stations. One of the stations shall be at the expected point of maximum concentrations, or as close to that expected point of maximum concentration as feasible.

The Lessee shall monitor air quality for sulphur dioxide, hydrogen sulphide, and suspended particulates, using automatic instruments with continuous recorders, when applicable. The Lessee shall also monitor, under the same conditions, hydrocarbons, oxides of nitrogen, and other pollutants, where the Mining Supervisor has determined that such monitoring is necessary to determine baseline air quality or to conduct an effective monitoring program. In addition, the Lessee shall establish a meteorological station in reasonable proximity to each proposed plant site to monitor, at least 95 percent of the time over each lease year during which monitoring is required, wind direction and speed (vane and anemometer) and humidity at three levels, one at least 100 feet above the surface of the plant site, one at approximately 30 feet above the surface of the plant site, and one at ground level, and temperature at two levels, one at least 100 feet above the surface of the plant site, and one at approximately 30 feet above the surface of the plant site. The Lessee shall maintain records of all baseline data collection and monitoring programs.

(d) Flora and Fauna. The Lessee shall make studies of the flora and fauna of the leased lands and of all other lands lying within a mile of the leased lands, and of all lands to be used for disposal of residues from mining and processing oil shale and also of the aquatic habitat as far downstream as the Mining Supervisor shall require. These studies will determine the distribution and density of the flora in these areas and periodically determine the condition of such flora. These studies shall also

determine the species of fauna, their distribution, and their abundance at bi-monthly intervals. The Lessee shall submit a report to the Mining Supervisor of the baseline data obtained and, during the monitoring program, shall submit semi-annual reports to the Mining Supervisor showing whether or not there has been any change. The Lessee shall also study, and report to the Mining Supervisor on ecological interrelationships including migratory patterns of birds, mammals, and fish, and plant animal relationships. The Lessee shall compile an inventory of natural surface water features, such as springs and seeps.

(e) Soil Survey and Productivity Assessment. The Lessee shall conduct a soil survey and productivity assessment of all portions of the Leased Lands proposed to be disturbed under the detailed development plan. This survey must include the preparation of maps, tables, and reports describing soil types, depth of the various layers of soil, but not more than a depth of 50 feet from the surface to be disturbed, strike and dip of the material, slopes, solar exposure, vegetative cover, and erodability.

(3) The environmental monitoring program shall be an integral part of the detailed development plan required in Section 10 of the lease, and at the time of the submission of the plan the Lessee shall provide the Mining Supervisory with a complete compilation of the baseline data collected above and the record of the monitoring program for any period subsequent to the conclusion of that compilation.

(4) Not more than one year after obtaining approval of the detailed mining plan and on each subsequent anniversary date the Lessee shall submit to the Mining Supervisor a report of the baseline data collected and a report of the monitoring programs as a part of the required annual progress reports on the development program. This portion of the annual report will be subject to public review and comment.

(D) Emergency Decisions

Any decisions or approvals of the Mining Supervisor required by these Stipulations to be in writing may in emergencies be issued orally, with written confirmation as soon thereafter as possible.

(E) Environmental Briefing

During the life of this Lease, Lessee shall provide that such Federal and State employees as may be designated by the Mining Supervisor shall brief personnel on environmental and other pertinent matters. The Lessee shall provide for such briefings upon the request of the Mining Supervisor, but the Mining Supervisor shall request only such briefings as may be reasonably necessary to effectuate the provisions of this Lease. Lessee shall make arrangements for the time, place, and attendance at such briefings. Lessee shall bear all costs of such briefings other than salary, per diem, subsistence and travel costs of Federal and State employees.

(F) Construction Standards

The general design of all buildings and structures shall comply with the latest edition of the Uniform Building Code (U.B.C.). Structural steel shall be designed in accordance with the latest edition of the American Institute of Steel Construction "Specifications for Design, Fabrication and Erection of structural Steel for Buildings." Reinforced concrete shall comply with the latest edition of the American Concrete Institute's Building Code Requirements for Reinforced Concrete." Engineering works for impoundments shall conform to standard engineering practice sufficient to withstand the 100-year flood in the drainage in which installed.

(G) Housing and Welfare of Employees

In the exercise of his right under section 2 of the Lease to construct buildings and other facilities for the housing and welfare of his employees, the Lessee shall at all times make certain that these facilities are situated, constructed, operated, and maintained in an orderly manner, satisfactory to the Mining Supervisor. While no general restriction is imposed upon the construction of facilities necessary to the employees' health and well-being, such construction shall be subject to the Mining Supervisor's approval and shall not unreasonably damage the environment of the leased lands.

(H) Posting of Stipulations and Plans

The Lessee shall insure that copies of these Stipulations and any approved exploration and development plans are available at the operating sites and for inspection by all on-the-ground operating personnel.

SECTION 2. ACCESS AND SERVICE PLANS

(A) Transportation Corridor Plans

The Lessee shall provide corridor plans for roads, pipelines and utilities on the Leased Lands for approval by the Mining Supervisor. Each plan shall include probable major design features and plans for the protection of the environment, prevention of pollution, minimization of erosion, rehabilitation and revegetation of all disturbed areas not required in operation of the transportation system, both during and after construction. The Lessee shall, to the maximum extent practicable, make use of multi-use corridors for roads, pipelines and utilities.

(B) Regulation of Public Access

After road construction is completed, the Lessee shall, upon consultation with the Lessor, permit reasonable, free and unrestricted public access to and upon the road and rights-of-way for all lawful and proper purposes except in plant sites, mine sites, disposal areas, and other operational areas which may be closed to the general public. The Lessee shall regulate public

access and public vehicular traffic as required to facilitate operations and to protect the public and, to the extent reasonable, livestock and wildlife from hazards associated with construction. For this purpose the Lessee shall provide warnings, flagmen, barricades, and other safety measures as necessary. Whenever the Mining Supervisor shall determine that the Lessee's regulation of access and traffic is unreasonable, or that the Lessee's provision of safety measures is inadequate, he shall so inform the Lessee who shall immediately take corrective measures.

(C) Existing and Planned Roads and Trails

Where feasible, the Lessee shall use existing roads and trails. Unless the Mining Supervisor shall direct otherwise, roads and trails shall be located, constructed, maintained, and closed according to the specifications of the Bureau of Land Management and shall include drainage structures where needed.

(D) Waterbars and Breaks

The Lessee shall divert runoff from roads and uphill slopes by means of waterbars, waterbreaks, or culverts constructed in accordance with Bureau specifications.

(E) Pipeline Construction Standards

In the design and construction of oil pipelines and the choice of materials for them, the Lessee shall follow the standards (wherever they may be made applicable) established by the Department of Transportation and, if these

standards should ever be revised, supplemented, or superseded, shall follow the new standards in new construction. These standards include:

(1) 49 CFR 192, Transportation of Natural and Other Gas by Pipeline; and

(2) 49 CFR 195, Transmission of Liquids by Pipeline.

(F) Pipeline Safety Standards

The Lessee shall meet, where applicable, the safety standards and reporting requirements set forth in the following, as now in effect and as hereafter amended, or, if these regulations should be superseded, the regulations or other rules superseding them:

(1) 49 CFR, Part 110, Carriers by Pipeline (Other than Natural Gas and Water);

(2) 49 CFR, Part 192, Transportation of Natural and Other Gas and Water);

(3) 49 CFR, Part 195, Transmission of Liquids by Pipeline;

(G) Shut-Off Valves

The Lessee shall insure that oil transportation pipeline designs provide for automatic shut-off valves at each pumping or compressor station and such additional valves as may be necessary in view of:

(1) Terrain and drainage systems traversed;

(2) Population centers;

(3) Wildlife and fishery habitat;

- (4) Public water supplies and significant water bodies;
- (5) Hazardous geologic areas; and
- (6) Scenic Values.

The Lessee shall install any additional valves required by the Mining Supervisor.

(H) Pipeline Corrosion

With regard to oil transportation pipelines, the Lessee shall submit detailed plans to the Mining Supervisor for corrosion-resistant design and methods for early detection of pipeline corrosion. These shall include: (1) pipe material and welding techniques to be used and information on their particular suitability for the environment involved; (2) details on the external pipe protection to be provided (coating, wrapping, etc.), including information on variation of the coating process to cope with variations in environmental factors; (3) plans for cathodic protection including details of impressed ground sources and controls to insure continuous maintenance of adequate protection over the entire surface of the pipe; (4) details of plans for monitoring cathodic protection current including spacing of current monitors; and (5) provision of periodic surveys of trouble spots, regular preventive maintenance surveys, regular surveys for external and internal deterioration which may result in failure, and special provisions for abnormal potential patterns resulting from crossings with other pipelines or cables.

(I) Electric Transmission Facilities

The Lessee shall design and construct telegraph, telephone, electric powerlines, distribution lines and other transmission facilities in accordance with the guidelines set forth in "Environmental Criteria for Electric Transmission System" (U.S.D.I., U.S.D.A., 1970), as now or in the future amended, or if these guidelines should be superseded, in the guidelines or other rules superseding them. Distribution lines shall be designed and constructed in accordance with REA Bulletin 61-10 (Powerline Contacts by Eagles and other Large Birds), as now or in the future amended, or, if these guidelines should be superseded, in the guidelines or other rules superseding them.

(J) Natural Barriers

Where a road or exploratory site cuts a natural barrier used for livestock control, the Lessee shall, at his own expense, close the opening by the use of a fence or other suitable barrier meeting Bureau standards.

(K) Specifications for fences, and Cattleguards

Fences and cattleguards constructed by the Lessee shall meet established Bureau specifications and standards.

(L) Crossings

The Lessee shall take all steps necessary to make certain that roads constructed under this lease do not prevent or unreasonably disrupt the use of existing roads, foot trails, pipelines, and other rights-of-way or major animal migration

routes. This requirement shall include the construction of suitable overhead or underground crossings where they are determined to be necessary by the Mining Supervisor.

(M) Alternate Routes

If during construction the Lessee's activities shall interfere with the free use of existing roads and trails used by persons, whether or not recorded, he shall provide such alternate roads and trails as the Mining Supervisor may determine to be needed.

(N) Off-Road Vehicle Use

The Lessee shall use off-road vehicles in a manner consistent with applicable regulations.

SECTION 3. FIRE PREVENTION AND CONTROL

(A) Instructions of the Mining Supervisor

(1) The Lessee shall comply with the instructions and directions of the Mining Supervisor concerning the use, prevention and suppression of fires, and shall make every reasonable effort to prevent, control and suppress any fire on land subject to the lease. Uncontrolled fires must be immediately reported to the Mining Supervisor.

(2) (a) The Lessee shall construct fire lines or perform clearing when determined by the Mining Supervisor to be necessary for forest, brush and grass fire prevention.

(b) The Lessee shall comply with the National Fire Codes on handling, transportation, storage, use and disposal of flammable liquids, gases, and solids.

(c) The Lessee shall take all appropriate actions to prevent oil shale outcrop fires.

(B) Liability of Lessee

The control and suppression of any fires on the Leased Lands (or on adjoining public lands which have spread from the Leased Lands) caused by the Lessee or his employees, contractors, subcontractors, or agents shall be at the expense of the Lessee. Upon the failure of the Lessee to control and suppress such fires in a manner satisfactory to him, the Mining Supervisor shall take such steps as are necessary to control and suppress the fire, either alone or in conjunction with other Federal, State, and local authorities, and the cost of such control and suppression shall be borne by the Lessee.

SECTION 4. FISH AND WILDLIFE

(A) Management Plan

The Lessee shall submit for approval by the Mining Supervisor, as part of the exploration and mining plan, a detailed fish and wildlife management plan which shall include the steps which the Lessee shall take to: (1) avoid or, where avoidance is impracticable, minimize damage to fish and wildlife habitat, including water supplies; (2) restore such habitat in the event it is unavoidably destroyed or damaged; (3) provide alternate habitats; and (4) provide controlled access to the public for the enjoyment of the wildlife resources on such lands as may be mutually agreed upon. The plan shall include, but not be limited to, detailed information on activities, time schedule, performance standards, proposed accomplishments, and ways and means of avoiding or minimizing environmental impacts on fish and wildlife.

(B) Mitigation of Damage

Wherever destruction or significant disturbance of fish and wildlife habitat is inevitable, the Lessee shall submit, for the Mining Supervisor's approval at least 60 days prior to the destruction or damage of the habitat, those measures which the Lessee proposes to take to comply with the requirement of 30 CFR 231.4(b), as now in effect or as hereafter amended, or, if that regulation should be superseded, the regulations or other rules superseding it, to avoid, or, where avoidance is impracticable, minimize and repair, injury or destruction of fish and wildlife and their habitat. As a general rule, the proposed measures should provide for habitat of similar type and equal in quantity and quality to that destroyed or damaged. The Mining Supervisor shall, within 60 days after the submission of the proposed measures to him, either approve or disapprove them. If he shall approve them, the Lessee shall execute the proposed measures for the mitigation of the destruction or damage of the habitat. If the Mining Supervisor shall disapprove the measures, he shall offer the Lessee an opportunity for consultation at which, whenever possible, he shall inform the Lessee of any changes which will make the measures acceptable.

(C) Big Game

The Lessee shall construct big game drift fences when and where necessary to direct big game movements around or away from oil shall development areas.

(D) Posting of Notices

The Lessee shall post in reasonable and conspicuous places notices informing its employees, agents, contractors, sub-contractors, and their employees of all applicable laws and regulations governing hunting, fishing, and trapping.

SECTION 5. HEALTH AND SAFETY

(A) In General

The Lessee shall take all measures necessary to protect the health and safety of all persons affected by its activities and operations and shall immediately abate any activity or condition which threatens the life of any person or which threatens any person with bodily harm.

(B) Compliance with Federal Health and Safety Laws and Regulations

The Lessee shall comply with the Federal Metal and Non-metallic Mine Safety Act of 1966 (30 U.S.C. §§ 721-740), as now in effect or as hereafter amended, or, if it should be superseded, with the statute superseding it, and the Occupational Health and Safety Act of 1970 (29 U.S.C. §§ 651-678), as now in effect, or as hereafter amended, or, if it should be superseded, with the statute superseding it, and all health and safety standards promulgated pursuant thereto.

(C) Use of Explosives

The Lessee shall insure that all blasting operations, including the purchase, handling, transportation, storage, use, and destruction of blasting agents are performed in conformance with Public Law 91-452, October 15, 1970 (18 U.S.C. 88841-848), as now in effect or as hereafter amended, or if it should be superseded, with the statute superseding it, and the regulations promulgated thereunder which are now in 26 CFR 181.

SECTION 6. HISTORIC AND SCIENTIFIC VALUES

(A) Cultural Investigations

The Lessee shall, prior to construction or mining, conduct a thorough and professional investigation of any portion of the Leased Lands to be used, including, but not limited to, those areas to be used for mining, processing, or disposal operations or roads, for objects of historic or scientific interest, including, but not limited to, Indian ruins, pictographs and other archeological remains. The Lessee shall report the results of these investigations of the Mining Supervisor before commencing construction and mining operations.

(B) Objects of Historic or Scientific Interest

The Lessee shall not in any activities under this lease appropriate, remove, injure, deface, or alter any object of antiquity, or of historic, prehistoric, or scientific interest,

including, but not limited to, Indian ruins, pictographs, and other archeological remains. Where a question exists as to whether or not an object is of historic, prehistoric, or scientific interest or is an object of antiquity, the Lessee shall report to the Mining Supervisor for a final determination of which he shall inform the Lessee without unnecessary delay.

SECTION 7. OIL AND HAZARDOUS MATERIALS

(A) Spill Contingency Plans

The Lessee agrees to submit spill contingency plans to the Mining Supervisor with the detailed development plan. This plan shall provide for the control of spills of oil or other hazardous substances which for purposes of this Section 7 shall be defined in section 311(a)(14) of the Federal Water Pollution Control Act, as amended (86 Stat. 816, 863), as now in effect or as hereafter amended, or if it should be superseded, the statute superseding it.

The plans shall conform to this Stipulation and the National Oil and Hazardous Substances Pollution Contingency Plan, 36 FR 16215, August 20, 1971, as now in force or as hereafter amended, or, if it shall be superseded, the document superseding it, and shall: (1) include a description of positive spill prevention efforts which the lessee shall make; (2) include provisions for spill control; (3) provide for immediate corrective action including spill

control and restoration of the affected resource; (4) provide that the Mining Supervisor shall approve any materials or devices used for spill control and shall approve any disposal sites or techniques selected to handle spilled matter; and (5) include separate and specific techniques and schedules for cleanup of spills on land, rivers and streams. As used in this Stipulation, spill control is defined as including detection, location, confinement, and cleanup of the spill.

(B) Responsibility

If, during operations, any oil or other hazardous substance should be discharged, the control, removal, disposal, and cleanup of that substance, wherever found, shall be the responsibility of Lessee. Upon the failure of the Lessee to control, remove, dispose of, or clean up the discharge, or to repair all damages resulting therefrom, the Mining Supervisor may take such measures as he deems necessary to control, remove, dispose of, or clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the Lessee. Such action by the Mining Supervisor shall not relieve Lessee of any responsibility as provided in this lease.

(C) Reporting of Spills and Discharges

The Lessee shall give immediate notice of any spills or discharges of oil or other hazardous substances to: (1) the Mining Supervisor and (2) such other Federal and State officials

as are required by law to be given such notice. A. Oral notice shall be confirmed by the Lessee in writing as soon as possible.

(D) Storage and Handling

The Lessee shall store oil, petroleum products, industrial chemicals and similar toxic or volatile materials in durable containers and locate such materials so that any accidental spillage will not drain into water courses, lakes, reservoirs, or ground water. Unless otherwise approved by the Mining Supervisor, the Lessee shall store substantial quantities (more than 500 gallons) of such materials in an area surrounded by impermeable containment structures. The volume of the containment structures shall be at least: (1) one-hundred fifty (150) percent of the total storage volume of storage tanks in the relevant area; plus (2) a volume sufficient for maximum trapped precipitation and run-off which might be impounded at the time of a spill.

(E) Pesticides and Herbicides

The Lessee shall not use pesticides and herbicides without the approval of the Mining Supervisor. Pesticides and herbicides shall be considered treatments of last resort, to be used only when reasonable alternatives are not available and where their use is consistent with protection and enhancement of the environment. Where pesticides and herbicides are used, they shall be used only with the approval of the Mining Supervisor and the type, amount, method of application, storage, and disposal shall be in accordance with applicable Federal and State procedures.

SECTION 8. POLLUTION--AIR

(A) Air Quality

The Lessee shall utilize and operate all facilities and devices in such a way as to avoid, or, where avoidance is impracticable, minimize air pollution. At all times during construction and operation, Lessee shall conduct its activities in accordance with all applicable air quality standards and related plans of implementation adopted pursuant to the Clean Air Act, as amended (40 U.S.C. §§ 1857-1857-1), as now in effect or as hereafter amended, or if it should be superseded, the statute superseding it, and applicable State standards.

(B) Dust

The Lessee shall make every reasonable effort to avoid, or, where avoidance is impracticable, minimize dust problems. Where necessary, sprinkling, oiling, or other means of dust control shall be required on roads and trails. The Lessee shall conduct processing operations so as not to create environmental or health problems associated with dust.

(C) Burning

The Lessee shall not burn waste, timber, or debris, except when disposal is essential and other methods of disposal would be more harmful to the environment and when authorized by the Mining Supervisor.

SECTION 9. POLLUTION--WATER

(A) Water Quality

The Lessee shall utilize and operate all facilities and devices in such a way as to avoid or, where avoidance is impracticable, minimize water pollution. At all times during construction and operation, Lessee shall conduct its activities in accordance with all applicable Federal and State water quality standards and related plans of implementation, as then in force. Where applicable Federal and State standards do not exist, the Mining Supervisor may establish reasonable standards to prevent degradation of water, and the Lessee shall comply with those standards. The Lessee shall not discharge waste water into any aquifer deemed by the Mining Supervisor to be a potentially valuable water supply nor into any aquifer which will discharge the waste into a surface stream.

(B) Disturbance of Existing Waters

All construction activities, exclusive of actual mining activities, that may cause the creation of new lakes, drainage of existing ponds, diversion of natural drainages, alternation of stream hydraulics, disturbance of areas of stream beds or degradation of land and water quality or adversely affect the environmental integrity of the area are prohibited unless approved in writing by the Mining Supervisor.

(C) Control of Waste Waters

In areas where overburden, water, or waste from mines or processing plants might contain toxic or saline materials, the Lessee shall:

(1) Divert surface or ground water so as to avoid the formation of toxic and saline water and its drainage into streams, or, where avoidance is impracticable, to minimize the formation of such waters and drainage, by preventing the entry or reducing the flow of water into the workings, waste piles, or overburden-storage areas;

(2) Dispose of refuse and spent shale from mining and processing in a manner which will avoid the discharge of toxic drainage or saline water into surface or ground water;

(3) Employ, upon termination of operations or use of any mine, processing plant, or waste disposal site, all practicable closing measures consistent with ecological principles and safety requirements in order to avoid the formation and discharge of toxic or saline water;

(4) Dispose of toxic and saline water derived from mining, processing, or refining operations in a manner that does not pollute surface or ground waters;

(5) During mining operations, monitor spoil and refuse for the presence of materials likely to yield unacceptable alkaline, acidic, saline, or toxic solutes; and

(6) Reinject no water, except in compliance with Federal and State standards then in effect and where authorized to do so by the Mining Supervisor; if the Lessee does reinject water, he shall establish such monitoring as the Mining Supervisor shall require.

(D) Cuts and Fills

The Lessee shall not cut or fill near or in streams which will result in siltation or accumulation of debris unless approved in writing by the Mining Supervisor.

(E) Crossings

The location of crossings of perennial streams, lakes and rivers must be approved in writing by the Mining Supervisor. To control erosion, the Lessee shall maintain buffer strips at least 200 feet wide on each side of a stream in their natural and undisturbed state unless otherwise authorized in writing by the Mining Supervisor.

(F) Road Surfacing Material

All road surfacing material used by the Lessee must be approved by the Mining Supervisor.

SECTION 10. POLLUTION--NOISE

The Lessee shall comply with all applicable Federal and State standards on noise pollution, as now in effect or as hereafter amended, or, if they should be superseded, the standards superseding them. In the absence of specific noise pollution standards, the Lessee shall keep noise at or below levels safe and acceptable for humans, as determined by the Mining Supervisor.

SECTION I. REHABILITATION

(A) In General

The Lessee shall, in accordance with approved plans, rehabilitate all affected lands to a usable and productive condition consistent with or equal to pre-existing land uses in the area and compatible with existing, adjacent undisturbed natural areas. Rehabilitation methods include, but are not limited to the following: leveling, backfilling, covering the surface with topsoil, and revegetating the spoil banks and pit areas consistent with sound restoration methods. The Lessee shall leave reclaimed land in a usable, non-hazardous condition such that soil erosion and water pollution are avoided or minimized. The Lessee shall, to the extent practicable, conduct such backfilling, leveling and grading concurrently with the mining operations. Upon removal of property at termination of the Lease pursuant to Sections 31 and 32 of the Lease, the Lessee shall, in accordance with approved plans, complete the restoration of affected lands to a usable and productive condition at least equal to pre-existing land uses in the area and compatible with existing adjacent undisturbed natural areas.

(B) Management Plan

The Lessee shall submit for approval by the Mining Supervisor an erosion control and surface rehabilitation plan as part of any exploration or development plan. The initial plan shall be submitted not less than 60 days prior to start of

mining site preparation and updated each year thereafter before March 15. The plan shall include, but not be limited to, detailed information on activities, areas, time schedules, standards, accomplishments, and methods of eliminating or minimizing oil shale development impacts. The Lessee shall base erosion control plans and procedures on a maximum 100-year precipitation rate characteristic of the area. If a 100-year rate is not available the Lessee shall use data based on the longest period of reliable information. Procedures and plans shall consider flash flood effects, mud flows, mudslides, landslides, rock falls, and other similar types of material mass movements.

(C) Stabilization of Disturbed Areas

The Lessee shall leave all disturbed areas in a stabilized condition. Stabilization practices shall include, as determined by the needs of specific sites: seeding; planting; mulching; and the placement of mat binders, soil binders, rock or gravel blankets or other such structures. Seeding and planting shall be repeated, as often as the Mining Supervisor shall deem reasonable, if prior attempts to revegetate are unsuccessful. All trees, snags, stumps or other vegetative material, not having commercial, ecological, wildlife, or construction value, shall be considered for mechanical chipping and spreading in a manner that will aid seeding establishment and soil stabilization.

(D) Surface Disturbance On-Site

The Lessee shall correct surface disturbance which may induce soil movement or water pollution, or both, whether during or after construction or mining, in accordance with the surface rehabilitation plan.

(E) Areas of Unstable Soils

The Lessee shall, where possible, avoid areas having soils that are susceptible to slides and slips, excessive settlement, severe erosion and soil creep during construction or operation. When such areas cannot be avoided the Lessee shall design construction to insure maximum stability. The Lessee shall make soil foundation investigations in conjunction with construction activities. The Lessee shall make such data available to the Mining Supervisor upon request.

(F) Materials

The Lessee shall, when feasible, utilize waste rock from the mining operations for road beds, fills and other similar construction purposes. When not feasible, gravel and other construction materials shall be purchased in accordance with 43 CFR 3610, as now in effect or as hereafter amended, or, if it shall be superseded, the regulation or rule superseding it, except that the sale of such materials from stream beds and upland soil areas shall be avoided unless otherwise approved by the Bureau District Manager.

(G) Slopes of Cut and Fill Areas

To the extent consistent with good mining practice, the Lessee shall maintain all cut and fill slopes in a stable condition for the duration of the Lease.

(H) Impoundments

The Lessee shall establish safe access to permanent water impoundments for persons, livestock, and wildlife, but, where consumption of such water would be harmful to humans or the use of such water would be detrimental to animals, he shall take necessary steps to prevent access by those to whom it would be harmful or detrimental.

(I) Flood Plains

The Lessee shall not construct improvements or conduct operations in flood plains or stream drainages when it is reasonable to expect risk to human life, pollution damage, or destruction of the existing environment caused by flood damage, without the express permission of the Mining Supervisor and without providing for protection of any such improvements constructed.

(J) Land Reclamation

The Lessee shall, unless otherwise directed by the Mining Supervisor, backfill, level, final grade, cover with topsoil and initiate revegetation of each segment of the operation area in accordance with the rehabilitation plan as soon

as that segment is no longer needed, but not later than one year after completion of the particular operation unless an alternative schedule has been approved by the Mining Supervisor.

(K) Overburden

The Lessee shall, unless otherwise directed by the Mining Supervisor, separate overburden material and stockpile it separately as to topsoil, and rock material for later use as fill and as top dressing for rehabilitation of disturbed areas.

(L) Revegetation

(1) The Lessee shall revegetate all portions of the Leased Lands which have been disturbed by his operations as soon as possible after the disturbance has ended in order to prevent, or, if prevention is impracticable, to minimize erosion and related problems. The Lessee shall restore the vegetation of disturbed areas by reestablishing permanent vegetation of a quality which will support fauna of the same kinds and in the same numbers as those existing at the time the base line data was obtained under section 1(C) of these Stipulations. Plans for revegetation, including species, density, and timing, must be submitted to the Mining Supervisor for approval. The Mining Supervisor may require any reasonable methods of revegetation, and, if he deems it desirable, may

require the Lessee to fence areas to assist revegetation. However, if the Lessor determines, at the time of submission of the detailed development plan under section 10(a) of this lease, that the Leased Lands will, upon the termination of the lease, be put to a different use from that to which they were devoted immediately prior to the issuance of this lease, the Mining Supervisor may require the Lessee to revegetate the land to meet that objective, except that the Lessee shall not be required to expend more money than that needed to meet the first revegetation standard.

(2) The Lessee shall initiate a revegetation program approved by the Mining Supervisor at the start of production to (1) delineate those parameters necessary to establish vegetation at a specific location and (2) show that successional changes in vegetation are compatible with the requirements under subparagraph (1) above.

(3) The Lessee shall demonstrate at the time of submission of the detailed development plan under section 10(a) of this lease that revegetation technology is available to enable him to provide the revegetation of the disturbed areas which is required under paragraph (1) of this subsection. If, in the opinion of the Mining Supervisor, the Lessee has failed to demonstrate the required technology, he shall be required to submit for approval a program designed to obtain the required technology. If the program to obtain the necessary technology is satisfactory, the Mining Supervisor may approve the Lessee's development plan submitted under section 10(a), but, if the

Lessee has not demonstrated the necessary technology by the tenth Anniversary Date after the Lease Year in which the development plan under section 10(a) was approved, the Lessee shall cease all exploratory, development, and production operations under that plan until he has demonstrated that the necessary technology is available to him. The Lessee shall report annually to the Mining Supervisor on the progress of this approved program to obtain the required technology. If the progress appears inadequate at any time, the Mining Supervisor may request the Lessee to amend the program. Whenever the Lessee has demonstrated the necessary technology, the required program shall terminate. Where the Mining Supervisor finds the Lessee has conducted his program to obtain technology, including any requested amendments, in a diligent manner and has expended funds in excess of \$500,000 on that program, the Secretary may determine the expenditures in excess of that figure to be extraordinary costs within the terms of section 7(d) of the lease and may credit those excess expenditures against any present or future royalties due the lessor, provided the results of the program are made public.

SECTION ... SCENIC VALUES

(A) Scenic Considerations in General

The Lessee shall, except where the Mining Supervisor has approved otherwise, use the following standards in all designing, clearing, earthmoving, and construction:

(1) Contours compatible with the natural environment shall be used to avoid straight lines.

(2) Natural colors consistent with the local environment such as pastels or muted shades of brown, green, reds, or greys shall be used in painting of facilities installed on the lease. Bright or unnatural colors shall be avoided except for use in warning signs or signals.

(3) Small natural openings or the edges of larger opening in the natural environment shall be utilized in construction of facilities, or disturbing the land surface.

(4) During the time when the land is disturbed, the portion of land which is not under revegetation programs shall only be those areas required under the mining plan for mining, storage, processing, or disposal operations.

(5) Contouring of the disturbed areas for reclamation shall simulate natural opening or areas consistent with the surrounding topography.

(B) Consideration of Aesthetic Values

The Lessee shall consider existing aesthetic values in all planning, construction, reclamation and mining operations. All operations, including, but not limited to, design and construction of roads, pipelines and transmission lines, shall, where practicable, be performed so as to minimize visual impact, make use of the natural topography, and to achieve harmony with the landscape.

(C) Protection of Landscape

The Lessee shall design any structures and facilities built under this Lease so that they will, to the extent practicable, blend with the natural landscape.

(D) Signs

The Lessee shall design and construct signs that are rustic in appearance and conform to BLM sign standards.

SECTION 13. VEGETATION

(A) In General

(1) The Lessee shall reserve from cutting and removal all timber and other vegetative material outside the clearing boundaries and all blazed, painted or posted trees which are on or mark the clearing boundaries, with the exception of danger trees or snags designated as such by the Mining Supervisor.

(2) The Lessee shall insure that all trees, snags or other woody material cut in connection with clearing operations are felled into the right-of-way and away from live water courses.

(B) Timber

The Lessee shall deal with timber in accordance with the following: clearing and grubbing limits shall be approximately 5 ft. outside of the edge of any cut or fill; where practicable, trees, snags, stumps or other woody material not having wildlife value or value to the Lessee shall be mechanically chipped and spread in a manner that will aid seeding establishment and soil stabilization; clearing boundaries shall be identified on the ground prior to clearing operations.

(C) Clearing and Stripping

The Lessee may clear and strip only such land as is necessary for mining, processing, disposal, and other operations under the lease. In connection with such operations the Lessee may clear and strip land necessary for roadbeds, but such roadbed widths shall be not more than 25 feet from the centerline unless otherwise specified by the Mining Supervisor.

SECTION 14. WASTE DISPOSAL

(A) Mine Waste

The Lessee shall, in accordance with the detailed development plan under section 10(a) of this lease, backfill or reclaim excavated material and spent shale and shall compact it thoroughly by machinery to avoid or, where avoidance is impossible, minimize erosion. The Lessee shall design slope faces of waste piles to insure slope stability and shall revegetate slope faces in accordance with the rehabilitation plan.

(B) Other Disposal Areas

The term "waste" as used in this subsection (B) means all waste other than mine waste. In accordance with approved plans, the Lessee shall collect, recycle or dispose of waste in sanitary land fills or other disposal areas, and shall use the best practicable portable or permanent waste disposal systems, as approved by the Mining Supervisor. The Lessee shall remove or otherwise dispose of all waste in a manner acceptable to the Mining Supervisor, and in accordance with all applicable standards and guidelines of the State, the United States Public Health Service and the Environmental Protection Agency.

(C) Disposal of Solid and Liquid Wastes

The Lessee shall design and construct disposal systems for solid and liquid wastes so as to avoid landslides, control erosion by wind and water, and establish conditions conducive to vegetative growth in the disposal area. The Lessee shall select and prepare disposal sites for wastes so as to avoid downward percolation of leached products and other pollutants into aquifers.

(D) Impoundment of Water

No disposal of mine waste, other waste, or the residue from any activity under this Lease shall be disposed of in a manner which could cause an impoundment of water unless plans for spillways and means of diversion and the prevention of both surface and underground water contamination have been prepared by the Lessee and approved by the Mining Supervisor, and the Lessee has complied with those plans.

(E) Slurry Waste Disposal

Wherever slurry waste disposal is used the Lessee shall provide impoundments sufficient to contain landslides, mud flows, or waste pile blowouts.